

Author Index to Volume 21

- Adam, D. E.: see Fox, C. A.
 Alley, K. E.: Retrofitting Larval Neuromuscular Circuits in the Metamorphosing Frog, 1092
 Al-Shamma, H. A.: see De Vries, G. J.
 Arnold, A. P.: see Brenowitz, E. A.
 Arnold, A. P.: see Jordan, C. L.
 Astrow, S. H.: see Thompson, W. J.
 Baker, N. T.: see Cohen, A. H.
 Baker, R.: see Bass, A. H.
 Baker, R.: see Graf, W.
 Balice-Gordon, R. J.: see Lichtman, J. W.
 Baptista, C. A.: see Macagno, E. R.
 Basham, M. E.: see Cherry, J. A.
 Bass, A. H. and Baker, R.: Sexual Dimorphisms in the Vocal Control System of a Teleost Fish: Morphology of Physiologically Identified Neurons, 1155
 Baum, M. J.: see Cherry, J. A.
 Beattie, M. S., Bresnahan, J. C., and Lopate, G.: Metamorphosis Alters the Response to Spinal Cord Transection in *Xenopus laevis* Frogs, 1108
 Bekoff, A.: see Watson, S. J.
 Beltz, B. S., Pontes, M., Helluy, S. M., and Kravitz, E. A.: Patterns of Appearance of Serotonin and Proctolin Immunoreactivities in the Developing Nervous System of the American Lobster, 521
 Berman, S. A.: see Bursztajn, S.
 Betz, W. J., Ribchester, R. R., and Ridge, R. M. A. P.: Competitive Mechanisms Underlying Synapse Elimination in the Lumbrical Muscle of the Rat, 1
 Blankenau, A. J.: see Coletti, S. M.
 Blaustein, J. D.: see Olster, D. H.
 Blaustein, J. K. and Turcotte, J. C.: Down-Regulation of Progesterone Receptors in Guinea Pig Brain: New Findings Using an Immunocytochemical Technique, 675
 Bovbjerg, A. M.: see Kollros, J. J.
 Breedlove, S. M.: see Fishman, R. B.
 Breer, H. and Knipper, M.: Regulation of High Affinity Choline Uptake, 269
 Brenowitz, E. A. and Arnold, A. P.: The Effects of Systemic Androgen Treatment on Androgen Accumulation in Song Control Regions of the Adult Canary Brain, 837
 Breidbach, O.: Constant Topological Organization of the Coleopteran Metamorphosing Nervous System: Analysis of Persistent Elements in the Nervous System of *Tenebrio molitor*, 990
 Bresnahan, J. C.: see Beattie, M. S.
 Bursztajn, S., Berman, S. A., and Gilbert, W.: Factors Released by Ciliary Neurons and Spinal Cord Explants Induce Acetylcholine Receptor mRNA Expression in Cultured Muscle Cells, 387
 Buzzard, M.: see Schmidt, J. T.
 Carew, T. J.: see Marois, R.
 Cepko, C. L.: see Ryder, E. F.
 Cherry, J. A., Basham, M. E., Weaver, C. E., Krohmer, R. W., and Baum, M. J.: Ontogeny of the Sexually Dimorphic Male Nucleus in the Preoptic/Anterior Hypothalamus of Ferrets and Its Manipulation by Gonadal Steroids, 844
 Chiba, A.: see Murphey, R. K.
 Chiba, C. M. and Rankin, C. H.: A Developmental Analysis of Spontaneous and Reflexive Reversals in the Nematode *Caenorhabditis elegans*, 543
 Chism, L.: see Fishman, R. B.
 Cline, H. T.: see Debski, E. A.
 Cohen, A. H., Dobrov, T. A., Li, G., Kiemel, T., and Baker, M. T.: The Development of the Lamprey Pattern for Locomotion, 958
 Cohan, C. S.: Frequency-Dependent and Cell-Specific Effects of Electrical Activity on Growth Cone Movements of Cultured *Helisoma* Neurons, 400
 Coletti, S. M., Ide, C. F., Blankenau, A. J., and Meyer, R. L.: Ocular Dominance Stripe Formation by Regenerated Isogenic Double Temporal Retina in *Xenopus laevis*, 276
 Condon, K.: see Thompson, W. J.
 Constantine-Paton, M.: see Debski, E. A.
 Cubas, S. C.: see Menéndez, J. A.
 Davies, A. M.: see Scott, S. A.
 Davis, M. R. and Fernald, R. D.: Social Control of Neuronal Soma Size, 1180
 Debski, E. A., Cline, H. T., and Constantine-Paton, M.: Activity-Dependent Tuning and the NMDA Receptor, 18
 de Couet, H. G.: see Sandeman, D. C.
 Dennison, J.: see Kelley, D. B.
 De Vries, G. J. and Al-Shamma, H. A.: Sex Differences in Hormonal Responses of Vasopressin Pathways in the Rat Brain, 686
 Dobrov, R. A.: see Cohen, A. H.
 Dubinsky, J. M. and Fischbach, G. D.: A Role for cAMP in the Development of Functional Neuromuscular Transmission, 414
 Durham, D.: see Rubel, E. W.
 Eagleson, G. W. and Harris, W. A.: Mapping of the Presumptive Brain Regions in the Neural Plate of *Xenopus laevis*, 427
 Edmonds, B. T. and Koenig, E.: ATP and Calmodulin Dependent Actomyosin Aggregates Induced by Cytochalasin D in Goldfish Retinal Ganglion Cell Axons *In Vitro*, 555
 Edwards, J. S. and Meyer, M. R.: Conservation of Antigen 3G6: A Crystalline Cone Constituent in the Compound Eye of Arthropods, 441
 Eskin, A.: see Zwartjes, R. E.
 Evans, B. I. and Fernald, R. D.: Metamorphosis and Fish Vision, 1037
 Fernald, R. D.: see Davis, M. R.
 Fernald, R. D.: see Evans, B. I.
 Fields, R. D.: see Nelson, P. G.

- Firestone, G. L.: see Fishman, R. B.
 Fischbach, G. D.: see Dubinsky, J. M.
 Fishman, R. B., Chism, L., Firestone, G. L., and Breedlove, S. M.: Evidence for Androgen Receptors in Sexually Dimorphic Perineal Muscles of Neonatal Male Rats—Absence of Androgen Accumulation by the Perineal Motoneurons, 694
 Fox, C. A., Adam, D. E., Watson, R., Jr., Hoffman, G. E., and Jacobson, C. D.: Immunohistochemical Localization of Cholecystokinin in the Medial Preoptic Area and Anterior Hypothalamus of the Brazilian Gray Short-Tailed Opossum: A Sex Difference, 705
 Frank, E. and Mendelson, B.: Specification of Synaptic Connections between Sensory and Motor Neurons in the Developing Spinal Cord, 33
 Fraser, S. E. and Perkel, D. H.: Competitive and Positional Cues in the Patterning of Nerve Connections, 51
 Fraser, S. E.: see Van Essen, D. C.
 French, A. S.: see Ramirez, J. M.
 Fritsch, B.: The Evolution of Metamorphosis in Amphibians, 1011
 Gambarana, C., Pittman, R., and Siegel, R. E.: Developmental Expression of the GABA_A Receptor $\alpha 1$ Subunit mRNA in the Rat Brain, 1169
 Gao, W.-Q.: see Macagno, E. R.
 Garcia, L.: see Houenou, L. J.
 Gilbert, W.: see Bursztajn, S.
 Goldstein, L. A. and Sengelaub, D. R.: Hormonal Control of Neuron Number in Sexually Dimorphic Spinal Nuclei of the Rat: IV. Masculinization of the Spinal Nucleus of the Bulbocavernosus with Testosterone Metabolites, 719
 Goodman, L. A. and Model, P. G.: Eliminating Afferent Impulse Activity Does Not Alter the Dendritic Branching of the Amphibian Mauthner Cell, 283
 Gordon, H.: see Van Essen, D. C.
 Gorski, R. A.: see Rhee, R. W.
 Graf, W. and Baker, R.: Neuronal Adaptation Accompanying Metamorphosis in the Flatfish, 1136
 Greif, K. F.: see Linderman, K. M.
 Hall, J. D. and Lloyd, P. E.: Involvement of Pedal Peptide in Locomotion in *Aplysia*: Modulation of Foot Muscle Contractions, 858
 Hamill, R. W. and Schroeder, B.: Hormonal Regulation of Adult Sympathetic Neurons: The Effects of Castration on Neuropeptide Y, Norepinephrine, and Tyrosine Hydroxylase Activity, 731
 Hankin, M. H. and Lund, R. D.: Directed Early Axonal Outgrowth from Retinal Transplants into Host Rat Brains, 1202
 Harris, A. J.: see Houenou, L. J.
 Harris, W. A.: Metamorphosis, 953
 Harris, W. A.: see Eagleson, G. W.
 Hartley, R. S. and Suthers, R. A.: Lateralization of Syringeal Function During Song Production in the Canary, 1236
 Herrera, A. A. and Werle, M. J.: Mechanisms of Elimination, Remodeling, and Competition at Frog Neuromuscular Junctions, 73
 Hoffman, G. E.: see Fox, C. A.
 Hoskins, A. G.: Metamorphosis of the Amphibian Eye, 970
 Hotta, Y.: see Wu, C.-F.
 Houenou, L. J., Pinçon-Raymond, M., Garcia, L., Harris, A. J., and Rieger, F.: Neuromuscular Development Following Tetrodotoxin-Induced Inactivity in Mouse Embryos, 1249
 Hutchison, J. B., Schumacher, M., Steimer, Th., and Gahr, M.: Are Separable Aromatase Systems Involved in Hormonal Regulation of the Male Brain?, 743
 Hyson, R. L.: see Rubel, E. W.
 Ide, C. F.: see Coletti, S. M.
 Jacobson, C. D.: see Fox, C. A.
 Jordan, C. L., Letinsky, M. S., and Arnold, A. P.: Critical Period for the Androgenic Block of Neuromuscular Synapse Elimination, 760
 Kater, S. B.: see Murrain, M.
 Kelley, D. B. and Dennison, J.: The Vocal Motor Neurons of *Xenopus laevis*: Development of Sex Differences in Axon Number, 869
 Kiemel, T.: see Cohen, A. H.
 Knipper, M.: see Breer, H.
 Kollros, J. J. and Bovbjerg, A. M.: Mesencephalic Fifth Nucleus Cell Responses to Thyroid Hormone: One Population or Two?, 1002
 Krohmer, R. W.: see Cherry, J. A.
 Landmesser, L.: see O'Brien, M. K.
 Layer, P. G.: see Weikert, T.
 Leblanc, G. G.: Coexpression of Sensory and Autonomic Neurotransmitter Traits by Avian Neural Crest Cells *In Vitro*, 567
 Letinsky, M. S.: see Jordan, C. L.
 Levine, R. B. and Weeks, J. C.: Hormonally Mediated Changes in Simple Reflex Circuits during Metamorphosis in *Manduca*, 1022
 Li, G.: see Cohen, A. H.
 Lichtman, J. W. and Balice-Gordon, R. J.: Understanding Synaptic Competition in Theory and in Practice, 99
 Linderman, K. M. and Greif, K. F.: Depolarization Regulates Expression of a Synaptic Vesicle Protein in Rat Superior Cervical Ganglia *In Vitro*, 295
 Lloyd, P. E.: see Hall, J. D.
 Lloyd, P. E.: see Pearson, W. L.
 Lopate, G.: see Beattie, M. S.
 Lund, R. D.: see Hankin, M. H.
 Macagno, E. R., Gao, W.-Q., Baptista, C. A., and Passani, M. B.: Competition or Inhibition? Developmental Strategies in the Establishment of Peripheral Projections by Leech Neurons, 107
 Marois, R. and Carew, T. J.: The Gastropod Nervous System in Metamorphosis, 1053
 Mawe, G. M., Gardette, R., D'Agostaro, L., and Role, L. W.: Development of Synaptic Transmission at Autonomic Synapses *In Vitro* Revealed by Cytochrome Oxidase Histochemistry, 578
 Meier, T. and Reichert, H.: Embryonic Development and Evolutionary Origin of the Orthopteran Auditory Organs, 592
 Mendelson, B.: see Frank, E.
 Menéndez, J. A. and Cubas, S. C.: Changes in Contralateral Protein Metabolism Following Unilateral Sciatic Nerve Section, 303
 Meyer, M. R.: see Edwards, J. S.
 Meyer, R. L.: see Coletti, S. M.
 Miller, M. W.: see Sullivan, R. E.
 Mills, L. R.: see Murrain, M.
 Model, P. G.: see Goodman, L. A.
 Murphey, R. K. and Chiba, A.: Assembly of the Cricket

- Cercal Sensory System: Genetic and Epigenetic Control, 120
- Murphy, A. D.: see Murrain, M.
- Murrain, M., Murphy, A. D., Mills, L. R., and Kater, S. B.: Neuron-Specific Modulation by Serotonin of Regenerative Outgrowth and Intracellular Calcium within the CNS of *Helisoma trivolvis*, 611
- Nardi, J. B. and Vernon, R. A.: Topographical Features of the Substratum for Growth of Pioneering Neurons in the Manduca Wing Disc, 1189
- Neale, E. A.: see Nelson, P. G.
- Nelson, J. C. and Wyman, R. J.: Examination of Paralysis in *Drosophila* Temperature-Sensitive Paralytic Mutations Affecting Sodium Channels: A Proposed Mechanism of Paralysis, 453
- Nelson, P. G., Fields, R. D., Yu, C., and Neale, E. A.: Mechanisms Involved in Activity-Dependent Synapse Formation in Mammalian Central Nervous System Cell Cultures, 138
- O'Brien, M.: see Shimizu, I.
- O'Brien, M. K., Landmesser, L., and Oppenheim, R. W.: Development and Survival of Thoracic Motoneurons and Hindlimb Musculature Following Transplantation of the Thoracic Neural Tube to the Lumbar Region in the Chick Embryo: Functional Aspects, 341
- O'Brien, M. K. and Oppenheim, R. W.: Development and Survival of Thoracic Motoneurons and Hindlimb Musculature Following Transplantation of the Thoracic Neural Tube to the Lumbar Region in the Chick Embryo: Anatomical Aspects, 313
- Olster, D. H. and Blaustein, J. D.: Immunocytochemical Colocalization of Progestin Receptors and β -Endorphin or Enkephalin in the Hypothalamus of Female Guinea Pigs, 768
- Oppenheim, R. W.: see O'Brien, M. K.
- Oppenheim, R. W.: see Shimizu, I.
- Passani, M. B.: see Macagno, E. R.
- Pearson, W. L. and Lloyd, P. E.: Distribution and Characterization of Pedal Peptide Immunoreactivity in *Aplysia*, 883
- Perkel, D. H.: see Fraser, S. E.
- Pinçon-Raymond, M.: see Houenou, L. J.
- Pittman, R.: see Gambarana, C.
- Pollack, A. J.: see Ritzmann, R. E.
- Poo, M. and Young, S. H.: Diffusional and Electrokinetic Redistribution at the Synapse: A Physicochemical Basis of Synaptic Competition, 157
- Ramirez, J.-M. and French, A. S.: Phentolamine Selectivity Affects the Fast Sodium Component of Sensory Adaptation in an Insect Mechanoreceptor, 893
- Rathjen, F. G.: see Weikert, T.
- Reh, T. A.: see Taylor, M.
- Reichert, H.: see Meier, T.
- Rhees, R. W., Shryne, J. E., and Gorski, R. A.: Onset of the Hormone-Sensitive Perinatal Period for Sexual Differentiation of the Sexually Dimorphic Nucleus of the Preoptic Area in Female Rats, 781
- Ribchester, R. R.: see Betz, W. J.
- Ridge, R. M. A. P.: see Betz, W. J.
- Rieger, F.: see Houenou, L. J.
- Ritzmann, R. E. and Pollack, A. J.: Parallel Motor Pathways from Thoracic Interneurons of the Ventral Giant Interneuron System of the Cockroach, *Periplaneta americana*, 1219
- Rubel, E. W., Hyson, R. L., and Durham, D.: Afferent Regulation of Neurons in the Brain Stem Auditory System, 169
- Robinson, K.: The Developing Visual System and Metamorphosis in the Lamprey, 1123
- Ryder, E. F., Snyder, E. Y., and Cepko, C. L.: Establishment and Characterization of Multipotent Neural Cell Lines Using Retrovirus Vector-Mediated Oncogene Transfer, 356
- Saito, M.: see Wu, C.-F.
- Sakai, K.: see Wu, C.-F.
- Sandeman, D. C., Sandeman, R. E., and de Couet, H. G.: Extraretinal Photoreceptors in the Brain of the Crayfish *Cherax destructor*, 619
- Sandeman, R. E.: see Sandeman, D. C.
- Sargent, P. B.: see Streichert, L. C.
- Schmidt, J. T. and Buzzard, M.: Activity-Driven Sharpening of the Regenerating Retinotectal Projection: Effects of Blocking or Synchronizing Activity on the Morphology of Individual Regenerating Arbor, 900
- Schroeder, B.: see Hamill, R. W.
- Schumacher, M.: see Hutchison, J. B.
- Scott, S. A. and Davies, A. M.: Inhibition of Protein Synthesis Prevents Cell Death in Sensory and Parasympathetic Neurons Deprived of Neurotrophic Factor *In Vitro*, 630
- Sengelaub, D. R.: see Goldstein, L. A.
- Shatz, C. J.: Competitive Interactions between Retinal Ganglion Cells during Prenatal Development, 197
- Shimizu, I., Oppenheim, R. W., O'Brien, M., and Shneiderman, A.: Anatomical and Functional Recovery Following Spinal Cord Transection in the Chick Embryo, 919
- Shneiderman, A.: see Shimizu, I.
- Shryne, J. E.: see Rhees, R. W.
- Siegel, R. E.: see Gambarana, C.
- Snyder, E. Y.: see Ryder, E. F.
- Soha, J. M.: see Van Essen, D. C.
- Steimer, Th.: see Hutchison, J. B.
- Streichert, L. C. and Sargent, P. B.: Differential Effects of Denervation on Acetylcholinesterase Activity in Parasympathetic and Sympathetic Ganglia of the Frog, *Rana pipiens*, 939
- Sullivan, R. E. and Miller, M. W.: Cholinergic Activation of the Lobster Cardiac Ganglion, 639
- Suthers, R. A.: see Hartley, R. S.
- Taylor, M. and Reh, T. A.: Induction of Differentiation of Rat Retinal, Germanal, Neuroepithelial Cells by bdcAMP, 470
- Thompson, W. J., Condon, K., and Astrow, S. H.: The Origin and Selective Innervation of Early Muscle Fiber Types in the Rat, 212
- Truman, J. W.: Metamorphosis of the Central Nervous System of *Drosophila*, 1072
- Turcotte, J. C.: see Blaustein, J. K.
- Vallano, M. L.: Developmental Regulation of Type II Calcium/Calmodulin-Dependent Kinase Isoforms in Rat Cerebellum, 1262
- Van Essen, D. C., Gordon, H., Soha, J. M., Fraser, S. E.: Synaptic Dynamics at the Neuromuscular Junction: Mechanisms and Models, 223
- Vernon, R. A.: see Nardi, J. B.

- Walthall, W. W.: Metamorphic-like Changes in the Nervous System of the Nematode *Caenorhabditis elegans*, 1085
- Watson, R., Jr.: see Fox, C. A.
- Watson, S. J. and Bekoff, A.: A Kinematic Analysis of Hindlimb Motility in 9- and 10-Day Old Chick Embryos, 651
- Weaver, C. E.: see Cherry, J. A.
- Weeks, J. C.: see Levine, R. B.
- Weikert, T., Rathjen, F. G., and Layer, P. G.: Developmental Maps of Acetylcholinesterase and G4-Antigen of the Early Chicken Brain: Long-Distance Tracts Originate from AChE-Producing Cell Bodies, 482
- Werle, M. J.: see Herrera, A. A.
- Wu, C.-F., Sakai, K., Saito, M., and Hotta, Y.: Giant *Drosophila* Neurons Differentiated from Cytokinesis-Arrested Embryonic Neuroblasts, 499
- Wyman, R. J.: see Nelson, J. C.
- Yang, J. and Zorumski, C. F.: Elevated Potassium Shortens Action Potential Duration by Altering Outward Currents in Chick Dorsal Root Ganglia Neurons, 661
- Young, S. H.: see Poo, M.
- Yu, C.: see Nelson, P. G.
- Zorumski, C. F.: see Yang, J.
- Zwartjes, R. E. and Eskin, A.: Changes in Protein Phosphorylation in the Eye of *Aplysia* Associated with Circadian Rhythm Regulation by Serotonin, 376

